

Caribbean River Fish



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American eel (*Anguilla rostrata*)



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mountain mullet (*Agonostomous monticola*)



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river goby (*Awaous tajasica*)



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Sirajo goby (*Sicydium plumieri*)



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big-mouth sleeper (*Gobiomorus dormitor*)

Description

Native fish that move far up the river systems are described here including species from the families of mullets, sleepers, eels, and gobies. Related species with similar life cycles occur in rivers on tropical and sub-tropical oceanic islands.

Habitat and Life Cycles

Caribbean freshwater fish dominate the lower river systems, although some occur in steep mountain streams. Some of the species mature and reproduce in the rivers, but the larvae move downstream to estuarine or marine waters, and juveniles must migrate back upstream.

The American eel, has a reverse life cycle where the females mature in the rivers, and move far out to sea to spawn. Larvae make their way to the continental and island coasts where they migrate back up the rivers.

The big-mouth sleeper, is known to be able to complete its life cycle in freshwater lakes, but may also utilize the estuaries.

The larger fish generally inhabit the deeper pools or runs in streams, while small species like the Sirajo goby move to the highest parts of the river system.

Distribution

These species are widespread in the Caribbean on island and continental coasts. Most are tropical or sub-tropical with very limited occurrences on the U.S. gulf coast. They are assumed to be the same species across their ranges, because of their appearance and since the larvae can travel between islands.

Ecology

The Caribbean river fish include predators, omnivores, and herbivores. Most of the large predatory fish have limited abilities to move up steep streams, but are abundant in pools at lower elevations.

The mountain mullet is omnivorous, but feeds actively on small shrimps and insects, often near the water surface. It is fished for food and sport. The big-mouth sleeper reaches large sizes, is exclusively predatory, and is a popular gamefish. Both fish rely primarily on sight to locate prey.

The American eel is a very active predator, but has weak eyes and a well developed sense of smell, thus preferring to hunt at night.

Little is known of the habits of the river goby, but it is often seen moving along the bottom looking for small prey in the crevices or sediments.

The Sirajo goby scrapes algae off rocks in the streams. It is capable of moving up vertical surfaces with the sucker formed from its modified ventral fins. With this sucker, it can move up vertical wet surfaces. The larvae of this goby are fished by the thousands as they migrate back into the rivers, and they are relished as a local delicacy.

Threats and Conservation Measures

River fish can be impacted by a variety of human activities such as projects that modify stream channels or flow, and deliberate or accidental discharge of toxic substances into the rivers.

Dams, water intakes, or river channelization affect most of these species because of their complex life cycles. In the continental U.S., the American eel is considered to be a species of concern because of the elimination of much of its historic river habitat due to dam construction.

There are many ways that the design or operation of needed projects can be modified to reduce impacts. Maintaining reasonable minimum river flows, reducing obstructions to migration, and maintaining habitat variety should all be considered.

Education on the careful use of agricultural chemicals, and strict enforcement against the use of chemicals for fishing are critical for maintaining water quality of aquatic life and human use.

The health of aquatic communities may be the best indicator of stream water quality for human use. We still have much to learn about these interesting organisms.

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